



DEPARTMENT OF TRANSPORTATION  
HAZARDOUS MATERIALS REGULATIONS BOARD  
WASHINGTON, D.C. 20590

5331

Chapter I—Hazardous Materials Regulations Board, Department of Transportation

[Docket No. HM-31; Amdt. Nos. 173-19, 178-9]

PART 173—SHIPPERS

PART 178—SHIPPING CONTAINER SPECIFICATIONS

Extension of Specification 3HT Cylinder Service Life

The purpose of this amendment to the Hazardous Materials Regulations of the Department of Transportation is to extend the service life of specification 3HT cylinders for aircraft use from 12 to 15 years without relinquishing the 4,380 pressurization cycle limitation. A second purpose is to change the reference to safety device requirements in § 178.44-13.

On August 20, 1969, the Hazardous Materials Regulations Board published a notice of proposed rule making, Docket HM-31; Notice No. 69-23 (34 F.R. 28) proposing to amend the regulations as stated above. Interested persons were invited to participate in this rule making action.

There were no comments received objecting to the basic proposal to extend service life of specification 3HT cylinders to 15 years. One commenter objected to the proposed change in record keeping requirements, and stated that such a requirement should apply only to those cylinders charged more than once every other day on the average. By this means, it would be known if a cylinder was cycled in excess of the 4380 limitation within the 15-year period. The Board agrees with the commenter's proposal.

As indicated in his original petition, the commenter stated that most rechargings are of the "topping off" type. The cylinders are seldom completely discharged and recharged; therefore, complete pressurization cycles are seldom experienced. A survey indicated that crew oxygen cylinders were most frequently recharged and that their recharging cycles were seldom shorter than 5 days.

As stated in the notice, the Board is providing a 3-year extension and not 12 years as requested. Further extension will be considered by the Board if sufficient justification is provided and following a complete study of the requalification requirements for specification 3HT cylinders.

In consideration of the foregoing, Parts 173 and 178 of Title 49 Code of Federal Regulations are amended, effective July 1, 1970. However, compliance with the regulations as amended herein is authorized immediately.

I. Part 173 is amended as follows:

A. In § 173.34 paragraph (e) (13) (iii) is amended to read as follows:

§ 173.34 Qualification, maintenance and use of cylinders.

(e) \* \* \*

(13) \* \* \*

(iii) A cylinder must be condemned at the termination of a 15-year period following the date of the original test or after 4,380 pressurizations, whichever occurs first. If a cylinder is recharged more than an average of once every other day, an accurate record of the number of rechargings must be maintained by its owner, or his agent.

\* \* \*

B. In § 173.302 paragraph (a) (2) is amended to read as follows:

§ 173.302 Charging of cylinders with nonliquefied compressed gases.

(a) \* \* \*

(2) Spec. DOT 3HT (§ 178.44 of this chapter) cylinders for aircraft use only having a maximum service life of 15 years. Authorized only for nonflammable gases. Cylinders must be equipped with safety relief devices only of the frangible disc type which meet the requirements

of § 173.34(d). Each frangible disc must have a rated bursting pressure which does not exceed 90 percent of the minimum required test pressure of the cylinder. Discs with fusible metal backing are not permitted. Spec. 3HT cylinders may be shipped only when packed in strong outside packagings.

\* \* \*

C. In § 173.304 paragraph (a) (2) Table Note 7 is amended to read as follows:

§ 173.304 Charging of cylinders with liquefied compressed gas.

(a) \* \* \*

(2) \* \* \*

NOTE 7: Spec. DOT 3HT (§ 178.44 of this chapter) cylinders for aircraft use only having a maximum service life of 15 years. Authorized only for nonflammable gases. Cylinders must be equipped with safety relief devices only of the frangible disc type which meet the requirements of § 173.34(d). Each frangible disc must have a rated bursting pressure which does not exceed 90 percent of the minimum required test pressure of the cylinder. Discs with fusible metal backing are not permitted. Spec. 3HT cylinders may be shipped only when packed in strong outside packagings.

\* \* \*

II. Part 178 is amended as follows:

A. In § 178.44-13 paragraph (a) is amended to read as follows:

§ 178.44 Specification 3HT; inside containers, seamless steel cylinders for aircraft use made of definitely prescribed steel.

§ 178.44-13 Safety devices and protection for valves, safety devices, and other connections, if applied.

(a) Must be as required by applicable regulations in Part 173 of this chapter (see §§ 173.34(d), 173.301(g), 173.302(a) (2), and 173.304(a) (2) Note 7 of this chapter).

(Secs. 831-835, title 18, United States Code, sec. 9, Department of Transportation Act (49 U.S.C. 1657); title VI, sec. 902(h), Federal Aviation Act of 1958 (49 U.S.C. 1421-1430, 1472(h)))

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